



PATENT

Case Docket No. ASMMC.050CP1

Date: May 17, 2004

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s) : Lindfors et al.  
Appl. No. : 10/782,727  
Filed : February 18, 2004  
For : SHOWERHEAD ASSEMBLY  
AND ALD METHODS  
Examiner : Unknown  
Group Art Unit : 1763

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

May 17, 2004

(Date)

*Adeel S. Akhtar*

Adeel S. Akhtar, Reg. No. 41,394

TRANSMITTAL LETTER

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement.
- (X) A PTO Form 1449 listing fifty-eight (58) references.
- (X) One (1) reference is enclosed.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

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## INFORMATION DISCLOSURE STATEMENT

Applicant : Lindfors et al.  
App. No. : 10/782,727  
Filed : February 18, 2004  
For : SHOWERHEAD ASSEMBLY AND ALD  
METHODS  
Examiner : Unknown  
Group Art Unit : 1763

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

Enclosed is form PTO-1449 listing 58 references. References numbered 1-10, 12-17, 19-48 and 50-58 are of record in U.S. patent application No. 10/428,207, filed April 29, 2003, which is relied upon for an earlier filing date under 35 U.S.C. § 120. Additionally, copies of disclosed U.S. patents, references numbers 11 and 18, are not included pursuant to PTO waiver of the requirement under 37 C.F.R. § 1.98(a)(2)(i) for applications filed after June 30, 2003. Accordingly, copies of references numbered 1-48 and 50-58 are not submitted pursuant to 37 C.F.R. § 1.98(d). Copies of other references are enclosed.

This Information Disclosure Statement is being filed with an RCE or within three months of the filing date of this application and no fee is required in accordance with 37 C.F.R. § 1.97(b)(1), (b)(2), or (b)(4).

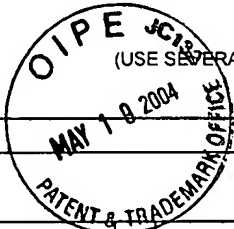
Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: May 17, 2004

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FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. ASMMC.050CP1	APPLICATION NO. 10/782,727
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Lindfors et al.	
		FILING DATE February 18, 2004	GROUP 1763



## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1	3,854,443	12/17/74	Baerg			
	2	4,522,149	6/11/85	Garbis et al.			
	3	4,582,720	4/15/86	Yamazaki			
	4	4,694,779	9/22/87	Hammond et al.			
	5	4,798,165	1/17/89	deBoer et al.			
	6	4,851,095	7/25/89	Scobey et al.			
	7	5,356,673	10/18/94	Schmitt et al.			
	8	5,500,256	3/19/96	Watabe			
	9	5,551,982	9/3/96	Anderson et al.			
	10	5,595,606	1/21/97	Fujikawa et al.			
	11	5,624,498	4/29/97	Lee et al.			
	12	5,669,975	9/23/97	Ashtiani			
	13	5,674,320	10/7/97	Kordina et al.			
	14	5,711,811	1/27/98	Suntola et al.			
	15	5,811,022	9/22/98	Savas et al.			
	16	5,916,365	6/29/99	Sherman			
	17	6,042,652	3/28/00	Hyun et al.			
	18	6,148,761	11/21/00	Majewski et al.			
	19	6,184,158 B1	2/6/01	Shufflebotham et al.			
	20	6,200,389 B1	3/13/01	Miller et al.			
	21	6,200,893 B1	3/13/01	Sneh			
	22	6,270,571 B1	8/7/01	Iwasaki et al.			
	23	6,305,314 B1	10/23/01	Sneh et al.			
	24	6,342,277 B1	1/29/02	Sherman			
	25	6,364,949 B1	4/2/02	Or et al.			
	26	6,368,987 B1	4/9/02	Kopacz et al.			
	27	6,416,822 B1	7/9/02	Chiang et al.			
	28	6,428,859 B1	8/6/02	Chiang et al.			

EXAMINER

DATE CONSIDERED

\*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE  <b>INFORMATION DISCLOSURE STATEMENT          BY APPLICANT</b>  (USE SEVERAL SHEETS IF NECESSARY)	ATTY. DOCKET NO. ASMMC.050CP1	APPLICATION NO. 10/782,727
	APPLICANT Lindfors et al.	
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	29	6,446,573 B2	9/10/02	Hirayama et al.			
	30	US 2002/0066411 A1	6/6/02	Chiang et al.			
	31	US 2002/0068458 A1	6/6/02	Chiang et al.			
	32	US 2002/0197402 A1	12/26/02	Chiang et al.			

FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	33	EP 0 015 390 B1	9/27/85	EPO				
	34	EP 0 550 058 A2	7/7/93	EPO				
	35	JP 02-030119	1/31/90	Japan				
	36	JP 61-101020 A	5/19/86	Japan				
	37	JP 61-263118 A	11/21/86	Japan				
	38	JP 62-080271 A	4/13/87	Japan				
	39	WO 96/17106	6/6/96	PCT				
	40	WO 96/17969	6/13/96	PCT				
	41	WO 00/12964	3/9/00	PCT				
	42	WO 00/63957	10/26/00	PCT				
	43	WO 00/79019 A1	12/28/00	PCT				
	44	WO 00/79576 A1	12/28/00	PCT				
	45	WO 01/00680 A1	1/4/01	PCT				
	46	WO 01/17692 A1	3/15/01	PCT				
	47	WO 02/08488 A1	1/31/02	PCT				
	48	WO 02/26192 A2	4/4/02	PCT				
X	49	WO 03/023835 A1	3/20/03	PCT				

EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)	
	50	de Keijser et al., "Atomic layer epitaxy of gallium arsenide with the use of atomic hydrogen," <u>Appl. Phys. Lett.</u> , Vol. 58, No. 11, March 18, 1991, pp. 1187-1189.

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EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
51	Imai et al., "Atomic layer epitaxy of Si using atomic H," <u>Thin Solid Films</u> , Vol. 225, (1993), pp. 168-172.
52	Koleske et al., "Atomic layer epitaxy of Si of Ge(100) using Si <sub>2</sub> Cl <sub>6</sub> and atomic hydrogen," <u>Appl. Phys. Lett.</u> , Vol. 64, No. 7, February 14, 1994, pp. 884-886.
53	Mahajan et al., "Si atomic layer epitaxy based on Si <sub>2</sub> H <sub>6</sub> and remote He plasma bombardment," <u>Thin Solid Films</u> , Vol. 225, (1993), pp. 177-182.
54	Singh et al., "Measurement of neutral and ion composition, neutral temperature, and electron energy distribution function in a CF <sub>4</sub> inductively coupled plasma," <u>J. Vac. Sci. Technol. A.</u> , Vol. 19, No. 3, May/June 2001, pp. 718-729.
55	Singh et al., "Measurements of the electron energy distribution function in molecular gases in a shielded inductively coupled plasma," <u>Journal of Applied Physics</u> , Vol. 88, No. 7, October 1, 2000, pp. 3889-3898.
56	Sugahara et al., "Atomic hydrogen-assisted ALE of germanium," <u>Applied Surface Science</u> , Vol. 90, (1995), pp. 349-356.
57	Sugahara et al. "Atomic layer epitaxy of germanium," <u>Applied Surface Science</u> , Vol. 82/83, (1994), pp. 380-386.
58	Sugahara et al., "Modeling of germanium atomic-layer-epitaxy," <u>Applied Surface Science</u> , Vol. 122, (1997), pp. 176-186.

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